

# Department of Aeronautics and Astronautics

## Naval Postgraduate School

### Faculty Vita

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#### **Garth V. Hobson**

Professor  
Mail Code: AA/Hg  
Department of Aeronautics and Astronautics  
Naval Postgraduate School  
699 Dyer Road, Room 137  
Monterey, California 93943-5106  
e-mail: [hobson@nps.navy.mil](mailto:hobson@nps.navy.mil)

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#### **Education:**

Ph.D. in Aerospace Engineering; Penn State University (1990)  
M.Sc.M.E. University of the Witwatersrand, Johannesburg, South Africa (1983)  
B.Sc.M.E., Aeronautical Option; University of the Witwatersrand, Johannesburg (1979)

#### **Related Experience (Teaching, Industrial, etc.):**

Naval Postgraduate School, Dept. of Aeronautics and Astronautics, 1990-Present  
Associate Professor, Associate Director – Turbopropulsion Laboratory  
Council for Scientific and Industrial Research (CSIR), Pretoria,  
Engineer, Section Head, Facility Head (Aero-Thermodynamic Facility), 1980 – 1989

#### **Institutional and Professional Service (Last 5 Years):**

Vanguard Chair for the sessions on Viscous Effects in Turbomachinery for the 2001 IGTI Conference in New Orleans.  
Chaired a session on Turbomachinery for the New Millenium at the 2000 IGTI Conference in Munich, Germany.  
Chaired a session on Tip Leakage Flows in Compressors at the 1996 IGTI Conference in Birmingham, UK.  
Committee Chairman for a Symposium on Computational Fluid Dynamics, Pretoria, 1987  
NPS Academic Council Representative for the Department of Aeronautics and Astronautics, 1992–1996.

#### **Honors and Awards:**

Certificate of Recognition for Outstanding Performance in Instruction, NPS, 1992  
Director's Award for Innovative Engineering, CSIR, 1983

#### **Scientific and Professional Society Membership:**

American Institute of Aeronautics and Astronautics  
American Society of Mechanical Engineers

#### **Principal Publications (Last 5 Years):**

“Effect of Reynolds Number on Separation Bubbles on Controlled-Diffusion Compressor Blades in Cascade,” To appear in the *AIAA Journal of Propulsion and Power*, Vol. 17, No. 1, 2001 (with Hansen, D. J., Schnorenberg, D. G., and Grove, D. V.)

- “Leading Edge Turbulence Amplification in a Compressor Cascade,” *International Journal of Rotating Machinery*, Vol. 5, pp 89-98, 1999 (with Wakefield, B. E., and Roberts, W. B.)
- “Laser-Doppler Velocimetry and Flow Visualization of Flow Through a Compressor Cascade at Stall,” *ASME Journal of Turbomachinery*, Vol. 120, No. 1, pp 170-178, Jan. 1998 (with Ganaim Rickel, H. J. and Williams, A. J. H.)
- “Three-Dimensional Fibre-Optics LDV Measurements in the Endwall Region of a Linear Cascade of Controlled-Diffusion Stator Blades,” *International Journal of Turbo and Jet Engines*, Vol. 14, No. 1, 1997 (with Dober, D. M.)
- “Aerodynamic Design Using Parallel Processors,” *AIAA Journal of Aircraft*, Vol. 33, No. 3, pp 630-632, May-June, 1996 (with Brawley, S.)
- “Advances in Turbomachinery Fluid Dynamics and Heat Transfer,” Chapter 17;
- “Laser-Doppler Velocimetry and Flow Visualization of Flow Through a Controlled-Diffusion Compressor Cascade at Stall,” Marcel Dekker, 1996